

Title (en)

ELECTROMAGNETIC WAVE-TRANSMITTING METAL MEMBER, ARTICLE USING SAME, AND METHOD FOR PRODUCING ELECTROMAGNETIC WAVE-TRANSMITTING METAL FILM

Title (de)

ELEKTROMAGNETISCHE WELLEN ÜBERTRAGENDES METALLELEMENT, ARTIKEL DAMIT UND VERFAHREN ZUR HERSTELLUNG EINER ELEKTROMAGNETISCHE WELLEN ÜBERTRAGENDE METALLSCHICHT

Title (fr)

ÉLÉMENT MÉTALLIQUE TRANSMETTANT DES ONDES ÉLECTROMAGNÉTIQUES, ARTICLE UTILISANT CELUI-CI ET PROCÉDÉ DE PRODUCTION D'UN FILM MÉTALLIQUE TRANSMETTANT DES ONDES ÉLECTROMAGNÉTIQUES

Publication

EP 3480007 A4 20200219 (EN)

Application

EP 17820201 A 20170628

Priority

- JP 2016130450 A 20160630
- JP 2017023734 W 20170628

Abstract (en)

[origin: EP3480007A1] Provided is an electromagnetic wave transmissive metal member capable of being easily produced at a low production cost, with both a metallic luster and an electromagnetic wave transmissibility, an article using the electromagnetic wave transmissive metal member, and a production method for an electromagnetic wave transmissive metal film. The electromagnetic wave transmissive metal member comprises a metal layer and a crack layer, wherein the metal layer and the crack layer have, in their respective planes, a plurality of linear cracks extending substantially parallel to each other. The linear cracks in the metal layer and the linear cracks in the crack layer penetrate through their respective layers in a thickness direction, and are continuous with each other in the thickness direction.

IPC 8 full level

B32B 3/24 (2006.01); **B32B 15/01** (2006.01); **B32B 15/04** (2006.01); **B32B 15/08** (2006.01); **B60R 19/52** (2006.01); **C23C 14/02** (2006.01); **C23C 14/20** (2006.01); **C23C 14/56** (2006.01); **C23C 14/58** (2006.01); **G01S 7/03** (2006.01); **G01S 13/93** (2020.01); **G01S 13/931** (2020.01)

CPC (source: EP KR US)

B32B 15/01 (2013.01 - EP US); **B32B 15/04** (2013.01 - EP); **B32B 15/08** (2013.01 - EP US); **B60R 19/52** (2013.01 - EP KR US); **C08J 5/18** (2013.01 - KR US); **C23C 14/024** (2013.01 - EP); **C23C 14/205** (2013.01 - EP); **C23C 14/34** (2013.01 - US); **C23C 14/562** (2013.01 - EP KR US); **C23C 14/5886** (2013.01 - EP); **C23C 28/021** (2013.01 - KR US); **C23C 28/321** (2013.01 - KR US); **C23C 28/34** (2013.01 - KR US); **G01S 7/03** (2013.01 - EP KR US); **G01S 13/93** (2013.01 - EP); **G01S 13/931** (2013.01 - KR US); **H01Q 1/3233** (2013.01 - US); **B60R 2019/525** (2013.01 - US); **C23C 14/34** (2013.01 - KR)

Citation (search report)

- [XII] US 2012076986 A1 20120329 - INUDUKA MASATAKA [JP], et al
- [XDI] US 2009297880 A1 20091203 - MARUOKA YOSUKE [JP], et al
- [XII] WO 2015050007 A1 20150409 - AISIN SEIKI [JP] & US 2016237549 A1 20160818 - HARA TAKASHI [JP], et al
- See references of WO 2018003847A1

Cited by

US11592551B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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EP 3480007 A1 20190508; **EP 3480007 A4 20200219**; CN 109311262 A 20190205; CN 109311262 B 20210615; JP 7305350 B2 20230710; JP WO2018003847 A1 20190418; KR 102425042 B1 20220725; KR 20190025572 A 20190311; TW 201811591 A 20180401; TW I791445 B 20230211; US 11351753 B2 20220607; US 2019315093 A1 20191017; WO 2018003847 A1 20180104

DOCDB simple family (application)

EP 17820201 A 20170628; CN 201780038483 A 20170628; JP 2017023734 W 20170628; JP 2018525204 A 20170628; KR 20187037715 A 20170628; TW 106122077 A 20170630; US 201716313338 A 20170628